



Amendments to the Claims

The listing of claims will replace the previous version, and the listing of claims:

Listing of Claims

1. (currently amended) A sheet supply apparatus for supplying a sheet, comprising:

a sheet supply tray for stacking the sheet;

an auxiliary tray movably attached to the sheet supply tray to move between a support position where the auxiliary tray supports a portion of the sheet stacked on the sheet supply tray and a storage position where the auxiliary tray overlaps the sheet supply tray;

sheet supply means situated adjacent to the sheet supply tray for supplying the sheet stacked on the sheet supply tray;

sheet detection means mounted on the auxiliary tray and having detection positions changed by a movement of the auxiliary tray, said sheet detecting means for detecting presence or absence of the sheet stacked on the sheet supply auxiliary tray;

tray position detection means for detecting a position of the auxiliary tray between the support position and the storage position; and

identifying means electrically connected to the sheet detection means and the tray position detection means for identifying a length of the sheet in a sheet supply direction based on detection results of the sheet detection means and the tray position detection means.

2. (original) A sheet supply apparatus according to claim 1, further comprising sheet width detection means for detecting a width of the sheet in a direction perpendicular to the sheet supply direction; and determining means electrically connected to the identifying means and the sheet width detection means for

determining a size of the sheet based on the length of the sheet in the sheet supply direction determined by the identifying means and the width of the sheet detected by the sheet width detection means.

3. (original) A sheet supply apparatus according to claim 2, wherein said sheet width detection means is disposed on the sheet supply tray for detecting the width of the sheet stacked on the sheet supply tray.

4. (original) A sheet supply apparatus according to claim 1, wherein said tray position detection means includes a first tray position sensor for detecting the auxiliary tray at the support position, and a second tray position sensor for detecting the auxiliary tray at the storage position.

5. (original) A sheet supply apparatus according to claim 1, wherein said sheet detection means is arranged at a position where the sheet detection means detects the sheet having a length longer than a first length when the auxiliary tray is positioned at the support position, and where the sheet detection means detects the sheet having a length longer than a second length and shorter than the first length when the auxiliary tray is positioned at the storage position.

6. (original) A sheet supply apparatus according to claim 5, wherein said identifying means determines that the sheet has a length longer than the first length when the tray position detection means detects the auxiliary tray at the support position and the sheet detection means detects the sheet, and determines that the sheet has a length longer than the second length and shorter than the first length when the tray position detection

means detects the auxiliary tray at the storage position and the sheet detection means detects the sheet.

7. (original) A sheet supply apparatus according to claim 1, further comprising signal generation means for generating an error signal when the tray position detection means detects the auxiliary tray at a position different from the support position and the storage position.

8. (currently amended) A sheet supply apparatus ~~according to claim 1, wherein said sheet detecting means includes~~ for supplying a sheet, comprising:

a sheet supply tray for stacking the sheet;

an auxiliary tray movably attached to the sheet supply tray to move between a support position where the auxiliary tray supports a portion of the sheet stacked on the sheet supply tray and a storage position where the auxiliary tray overlaps the sheet supply tray;

sheet supply means situated adjacent to the sheet supply tray for supplying the sheet stacked on the sheet supply tray;

tray position detection means for detecting a position of the auxiliary tray between the support position and the storage position;

first sheet detection means mounted on the auxiliary tray for detecting the sheet stacked on the sheet supply tray, and ;

second sheet detection means mounted on the auxiliary tray at a downstream side relative to the first sheet detection means in the a sheet supply direction for detecting the sheet stacked on the sheet supply tray; and

identifying means electrically connected to the first and second sheet detection means and the tray position detection means for identifying a length of the sheet in the sheet supply direction based on detection results of the first and second sheet detection

means and the tray position detection means, wherein said identifying means determines the length of the sheet stacked on the sheet supply tray in the sheet supply direction by detection results of the first sheet detection means and the second sheet detection means when the tray position detection means detects the auxiliary tray at the support position, and by detection result of the first sheet detection means when the tray position detection means detects the auxiliary tray at the storage position.

9. (original) A sheet supply apparatus according to claim 8, wherein said identifying means invalidates the detection result of the second sheet detection means when the tray position detection means detects the auxiliary tray at the storage means.

10. (original) A sheet supply apparatus according to claim 9, further comprising signal generation means for generating an error signal when the tray position detection means detects the auxiliary tray at a position different from the support position and the storage position.

11. (original) A sheet supply apparatus according to claim 8, further comprising sheet width detection means for detecting a width of the sheet in a direction perpendicular to the sheet supply direction; and determining means electrically connected to the identifying means and the sheet width detection means for determining a size of the sheet based on the length of the sheet in the sheet supply direction determined by the identifying means and the width of the sheet detected by the sheet width detection means.

12. (cancelled)

13. (original) An image reading apparatus for reading the sheet with an image formed thereupon, comprising: the sheet supply apparatus according to claim 1; reading means for reading the image on the sheet fed to a reading position by the sheet supply means; discharge means for discharging the sheet read at the reading position; a discharge tray for storing the sheet discharged by the discharge means; sheet width detection means for detecting a width of the sheet in a direction perpendicular to the sheet supply direction; and determining means for determining a size of the sheet based on the length of the sheet in the sheet supply direction identified by the identifying means and the width of the sheet detected by the sheet width detection means.

14. (original) An image reading apparatus according to claim 13, wherein said sheet width detection means is disposed on the sheet supply tray for detecting the width of the sheet stacked on the sheet supply tray.

15. (original) An image reading apparatus according to claim 14, further comprising transmission means for transmitting information regarding the size of the sheet determined by the determining means to an external device before at least the reading means reads the image on the sheet.

16. (new) A sheet supply apparatus according to claim 8, wherein said first and second sheet detection means are arranged such that a position of the first sheet detection means when the auxiliary tray is located in the storage position is substantially same as a position of the second sheet detection means when the auxiliary tray is located in the support position.

17. (new) A sheet supply apparatus according to claim 8, wherein said first and second sheet detecting means detect presence or absence of the sheet stacked on the auxiliary tray.